

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/005050

International filing date (day/month/year)
02.12.2004

Priority date (day/month/year)
20.12.2003

International Patent Classification (IPC) or both national classification and IPC
C09D11/00, C09D11/10

Applicant
AVECIA LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized Officer

Ellrich, K

Telephone No. +49 89 2399-8295



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

10/583709
International application No.
PCT/GB2004/005050

1AP20 Rev. 1 PTO 20 JUN 2006

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/005050

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-19
Inventive step (IS)	Yes: Claims	
	No: Claims	1-19
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2004/005050

Re item V:

Reference is made to the following document/s/:

- D1: US-B1-6 550 905 (DECKERS BERNARD J) 22 April 2003 (2003-04-22)
- D2: WO 99/29788 A (XAAR TECHNOLOGY LIMITED; JOHNSON, STEVE; WOODS, JILL) 17 June 1999 (1999-06-17)
- D3: US 2003/199655 A1 (YURUGI KEIJI ET AL) 23 October 2003 (2003-10-23)
- D4: US-B1-6 593 390 (JOHNSON STEVE ET AL) 15 July 2003 (2003-07-15)

1. Art. 33(2) PCT:

D1 discloses (claim 15, examples, abstract) solvent-free ink jet inks containing colorants and 20-40%wt monofunctional acrylates, 35-55% diacrylates and 5-15% triacrylates (leading to values of formula (1) below 60). The inks of D1 are disclosed to be curable without photoinitiators (Col. 12, l. 4, Col. 8, l. 19 and Col. 7, l. 50).

Consequently, the subject-matter of claims 1-19 is anticipated by D1.

D2 discloses (claim 1) solvent-free ink jet inks containing colorants and >20% monofunctional acrylates, >17,5% diacrylates and 10-30% triacrylates the total amount of acrylates being at least 35% (leading to values of formula (1) below 60). The inks of D2 are disclosed to be curable without photoinitiators by electron beam (p. 5, l. 14).

Consequently, the subject-matter of claims 1-19 is anticipated by D2.

2. Art. 33(3)PCT:

Providing an amended main claim which meets the requirements of Art. 33(2)PCT, the applicant should relate the distinguishing feature to a surprising (unexpected) technical effect or make credible or plausible that said difference is not derivable from the prior art teaching.